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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/823,363	03/30/2001	Tse-Hua Lan	US010131 CPLP	7625

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PHILIPS INTELLECTUAL PROPERTY & STANDARDS
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EXAMINER

DO, CHAT C

ART UNIT	PAPER NUMBER
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2124

DATE MAILED: 05/21/2004

3

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/823,363

Applicant(s)

LAN ET AL.

Examiner

Chat C. Do

Art Unit

2124

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03/30/2001; 10/18/2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 March 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date 2. | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Specification

1. The disclosure is objected to because of the following informalities:

A line "A:\Gerry\5121Philips\09DCTcompress\5121-9App.doc" in abstract page needs to be removed.

Throughout specification, the phrase "Fig. 12H" should be replaced as "Fig. 2H".

Appropriate correction is required.

Claim Objections

2. Claims 1 and 8 are objected to because of the following informalities:

Re claim 1, the terms "DCT" and "IDCT" must be rewritten in full as "discrete cosine transform (DCT)" and "inversed discrete cosine transform (IDCT)".

Claim 8 has the same objections.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 4-7 and 11-14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

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Re claim 4, the limitation “the fifty-seventh DCT coefficient” lacks an antecedence basis. For examination purposes, the examiner considers the limitation as a fifty-seventh DCT coefficient wherein the fifty-seventh DCT coefficient is just any DCT coefficient.

Re claim 5, it has same problem as cited above with the limitation “the sixty-fourth DCT coefficient”.

Re claim 6, it has same problem as cited above with the limitation “the eighth DCT coefficient”.

Re claim 7, it has same problem as cited above with the limitations “a first subset consisting of the first, second, third, fourth, ninth, tenth, eleventh, twelfth, seventeenth, eighteenth, nineteenth, twentieth, twenty-fifth, twenty-sixth, twenty-seventh, and twenty-eighth positions; and a second subset consisting of the first, second, third, fourth, ninth, tenth, eleventh, twelfth, seventeenth, eighteenth, nineteenth, twentieth, twenty-fifth, twenty-sixth, twenty-seventh, twenty-eighth, thirty-third, thirty-fourth, thirty-fifth, forty-first, forty-second, forty-third, forty-fourth, forty-ninth, fiftieth, fifty-first, fifty-second, fifty-seventh, fifty-eighth, fifty-ninth, and sixtieth positions”. For examination purposes, the examiner considers these coefficients are just a plurality of any coefficients because the claim does not disclose clearly the structure and relationship of these coefficients.

Claims 11-14 also have the same problem.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 1-6 and 8-13 are rejected under 35 U.S.C. 102(b) as being anticipated by the admitted prior art.

Re claim 1, the admitted prior art discloses in page 2-3 of present application a method of decoding DCT-encoded blocks of a data signal, the method comprising: (a) predetermining a plurality of subsets of DCT coefficient positions (page 3 lines 6-7); (b) receiving a set of DCT coefficients obtained from DCT encoding a corresponding portion of a data signal (page 3 lines 5-6); (c) selecting one of said subsets of DCT coefficient positions according to a value of a predetermined one of the received DCT coefficients (page 3 lines 6-7); (d) performing IDCT decoding on the selected subset of DCT coefficients to recover a representation of the corresponding portion of the data signal (page 2 lines 21-22); and repeating steps (b) (c) and (d) for successive sets of DCT coefficients (inherently page 3 lines 10-15).

Re claim 2, the admitted prior art further discloses in page 2-3 the data signal is video data encoded according to the MPEG algorithm (page 2 line 14).

Re claim 3, the admitted prior art further discloses in page 2-3 the data signal is video data encoded according to the MPEG2 algorithm (page 2 line 14).

Re claim 4, the admitted prior art further discloses in page 2-3 the data signal is an 8x8 macroblock of pixels (page 2 lines 17-20), and the predetermined one of the received DCT coefficients is the fifty-seventh DCT coefficients (page 3 lines 7-8).

Re claim 5, the admitted prior art further discloses in page 2-3 the data signal is an 8x8 macroblock of pixels (page 2 lines 17-20), and the predetermined one of the received DCT coefficients is the sixty-fourth DCT coefficients (page 3 lines 7-8).

Re claim 6, the admitted prior art further discloses in page 2-3 the data signal is an 8x8 macroblock of pixels (page 2 lines 17-20), and the predetermined one of the received DCT coefficients is the eighth DCT coefficient (page 3 lines 7-8).

Re claim 8, it is an apparatus claim of claim 1. Thus, claim 8 is also rejected under the same rationale in the rejection of rejected claim 1.

Re claim 9, it is an apparatus claim of claim 2. Thus, claim 9 is also rejected under the same rationale in the rejection of rejected claim 2.

Re claim 10, it is an apparatus claim of claim 3. Thus, claim 10 is also rejected under the same rationale in the rejection of rejected claim 3.

Re claim 11, it is an apparatus claim of claim 4. Thus, claim 11 is also rejected under the same rationale in the rejection of rejected claim 4.

Re claim 12, it is an apparatus claim of claim 5. Thus, claim 12 is also rejected under the same rationale in the rejection of rejected claim 5.

Re claim 13, it is an apparatus claim of claim 6. Thus, claim 13 is also rejected under the same rationale in the rejection of rejected claim 6.

7. Claims 1-14 are rejected under 35 U.S.C. 102(e) as being anticipated by Lengwehasatit (U.S. 6,167,092).

Re claim 1, Lengwehasatit discloses in Figure 5 a method of decoding DCT-encoded blocks of a data signal (abstract) the method comprising: (a) predetermining a plurality of subsets of DCT coefficient positions (501-503); (b) receiving a set of DCT coefficients obtained from DCT encoding a corresponding portion of a data signal (input into 506); (c) selecting one of said subsets of DCT coefficient positions according to a value of a predetermined one of the received DCT coefficients (508 as seen in Figure 6); (d) performing IDCT decoding on the selected subset of DCT coefficients to recover a representation of the corresponding portion of the data signal (508 or 509); and repeating steps (b) (c) and (d) for successive sets of DCT coefficients.

Re claim 2, Lengwehasatit further discloses in Figure 5 the data signal is video data encoded according to the MPEG algorithm (col. 1 line 23).

Re claim 3, Lengwehasatit further discloses in Figure 5 the data signal is video data encoded according to the MPEG2 algorithm (col. 1 line 23).

Re claim 4, Lengwehasatit further discloses in Figure 5 the data signal is an 8x8 macroblock of pixels (Figure 2), and the predetermined one of the received DCT coefficients is the fifty-seventh DCT coefficients (503).

Re claim 5, Lengwehasatit further discloses in Figure 5 the data signal is an 8x8 macroblock of pixels (Figure 2), and the predetermined one of the received DCT coefficients is the sixty-fourth DCT coefficients (503).

Re claim 6, Lengwehasatit further discloses in Figure 5 the data signal is an 8x8 macroblock of pixels (Figure 2), and the predetermined one of the received DCT coefficients is the eighth DCT coefficient (503).

Re claim 7, Lengwehasatit further discloses in Figure 5 the plurality of predetermined subsets of DCT coefficients (503 as IDCT algorithms) consist of two subsets: a first subset consisting of the first, second, third, fourth, ninth, tenth, eleventh, twelfth, seventeenth, eighteenth, nineteenth, twentieth, twenty-fifth, twenty-sixth, twenty-seventh, and twenty-eighth positions; and a second subset consisting of the first, second, third, fourth, ninth, tenth, eleventh, twelfth, seventeenth, eighteenth, nineteenth, twentieth, twenty-fifth, twenty-sixth, twenty-seventh, twenty-eighth, thirty-third, thirty-fourth, thirty-fifth, forty-first, forty-second, forty-third, forty-fourth, forty-ninth, fiftieth, fifty-first, fifty-second, fifty-seventh, fifty-eighth, fifty-ninth, and sixtieth positions; IDCT decoding is performed on the first subset of coefficient positions if the value of the coefficients is below a predetermined threshold; and IDCT decoding is performed on the second subset of DCT coefficient if the value of the predetermined one of the DCT coefficients is equal to or greater than the predetermined threshold (col. 6 lines 10-15).

Re claim 8, it is an apparatus claim of claim 1. Thus, claim 8 is also rejected under the same rationale in the rejection of rejected claim 1.

Re claim 9, it is an apparatus claim of claim 2. Thus, claim 9 is also rejected under the same rationale in the rejection of rejected claim 2.

Re claim 10, it is an apparatus claim of claim 3. Thus, claim 10 is also rejected under the same rationale in the rejection of rejected claim 3.

Re claim 11, it is an apparatus claim of claim 4. Thus, claim 11 is also rejected under the same rationale in the rejection of rejected claim 4.

Re claim 12, it is an apparatus claim of claim 5. Thus, claim 12 is also rejected under the same rationale in the rejection of rejected claim 5.

Re claim 13, it is an apparatus claim of claim 6. Thus, claim 13 is also rejected under the same rationale in the rejection of rejected claim 6.

Re claim 14, it is an apparatus claim of claim 7. Thus, claim 14 is also rejected under the same rationale in the rejection of rejected claim 7.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- a. U.S. Patent No. 5,379,122 to Eschbach discloses a decompression of standard ADCT-Compressed images.
- b. U.S. Patent No. 6,374,280 to Li discloses a computationally efficient inverse discrete cosine transform method and apparatus.
- c. U.S. Patent No. 6,466,924 to Tateishi et al. disclose a verification method of neural network and verification apparatus thereof.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chat C. Do whose telephone number is (703) 305-5655. The examiner can normally be reached on M => F from 7:00 AM to 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chaki Kakali can be reached on (703) 305-9662. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Chat C. Do
Examiner
Art Unit 2124

May 10, 2004



TODD INGBERG
PRIMARY EXAMINER